

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently amended) A pharmaceutical composition for protecting and preserving an organ, a tissue, or a cell, comprising a purified polyphenol or a purified mixture of polyphenols.
2. (Original) The composition of claim 1, wherein said polyphenol is present in an amount sufficient for preservation of said organ, tissue, or cell during ischemia or reperfusion.
3. (Original) The composition of claim 2, wherein the ischemia and reperfusion arises in surgery or medical operation.
4. (Original) The composition of claim 1, wherein the preservation is for operation, and said polyphenol, is administered during the time from pre-operation to post-reperfusion.
5. (Original) The composition of claim 4, wherein the administration is administered at a time from at least two weeks before an operation to the date of the operation.
6. (Original) The composition of claim 4, wherein the administration is administered at least at the time of ischemia.
7. (Original) The composition of claim 4, wherein the administration is performed at least on reperfusion.
8. (Original) The composition of claim 4, wherein the administration is performed at least after reperfusion.

9. (Original) The composition of claim 4, wherein the administration is performed orally or parenterally.

10. (Original) The composition of claim 4, wherein the operation is surgical or internally.

11. (Original) The composition of claim 10, wherein the operation is surgical.

12. (Original) The composition of claim 11, wherein the surgical operation uses off-pump, PCI, catheter intervention or extracorporeal circulation.

13. (Original) The composition of claim 11, wherein the surgical operation is an operation of aorta, arteries, coronaria or valve.

14. (Original) The composition of claim 1, wherein the organ, tissue or cell is an organ.

15. (Original) The composition of claim 1, wherein the organ comprises the skin, blood vessels, cornea, kidney, heart, liver, umbilical cord, intestine, nerve, lung, placenta, or pancreas.

16. (Original) The composition of claim 1, wherein the organ is selected from the group consisting of the heart, brain, nerve and spinal cord.

17. (Original) The composition of claim 1, wherein the organ, tissue or cell is mammalian.

18. (Original) The composition of claim 1, wherein the organ, tissue or cell is human.

19. (Original) The composition of claim 1, which is a protective agent for the organ, tissue or cell.

20. (Original) The composition of claim 1, wherein the protection comprises protection in ischemia.

21. (Original) The composition of claim 1, which is a preservation agent for the organ, tissue or cell.

22. (Original) The composition of claim 1, wherein the polyphenol is a mixture or a single component.

23. (Original) The composition of claim 1, wherein the polyphenol is a catechin, tannin, proanthocyanidine, or resveratrol.

24. (Original) The composition of claim 1, wherein the polyphenol comprises at least catechins or tannins.

25. (Original) The composition of claim 1, wherein the polyphenol comprises epigallocatechingailate.

26. (Original) The composition of claim 1, wherein the polyphenol has a hydroxy value of about 2 to about 100.

27. (Original) The composition of claim 1, wherein the polyphenol comprises an extract selected from the group consisting of tea extract, seaweed extract, aloe extract, wine extract, cactus extract and fruit extract.

28. (Original) The composition of claim 1, wherein the polyphenol comprises seaweed extract.

29. (Original) The composition of claim 1, wherein the polyphenol comprises tea extract.

30. (Original) A method for protecting an organ, tissue or cell in a subject, comprising:

1) exposing the organ, tissue or cell to a polyphenol.

31. (Original) The method of claim 30, wherein the polyphenol is administered to the subject in an amount effective for protecting the organ, tissue or cell, during ischemia or reperfusion.

32. (Original) The method of claim 30, wherein the protection is performed at operation.

33. (Original) The method of claim 30, wherein the operation is surgical or internal.

34. (Original) The method of claim 32, wherein the polyphenol is administered to the subject at any period of time from pre-operation to reperfusion.

35. (Original) The method of claim 34, wherein the administration is performed at any time point from at least two weeks before operation to the date of operation.

36. (Original) The method of claim 34, wherein the administration is performed at least at ischemia,

37. (Original) The method of claim 34, wherein the administration is performed at least at reperfusion.

38. (Original) The method of claim 34, wherein the administration is performed at least after reperfusion.

39. (Original) The method of claim 34, wherein the administration is performed orally or parenterally.

40. (Original) The method of claim 32, wherein the operation is surgical.

41. (Original) The method of claim 32, wherein the surgical operation uses off-pump, PCI, catheter intervention or extracorporeal circulation.

42. (Original) The method of claim 40, wherein the surgery operation is an operation on the aorta, arteria coronaria or valve.

43. (Original) The method of claim 30, wherein the organ, tissue or cell is an organ.

44. (Original) The method of claim 30, wherein the organ comprises the skin, blood vessels, cornea, kidney, heart, liver, umbilical cord, intestine, nerve, lung, placenta, or pancreas.

45. (Original) The method of claim 30, wherein the organ is selected from the group consisting of the heart, brain, nerve and spinal cord.

46. (Original) The method of claim 30. wherein the organ, tissue or cell is mammalian.

47. (Original) The method of claim 30, wherein the organ, tissue or cell is human.

48. (Original) The method of claim 30, wherein the protection comprises protection during ischemia.

49. (Original) The method of claim 30, wherein the protection comprises protection at reperfusion.

50. (Original) The method of claim 30, wherein the polyphenol is a mixture or a single component.

51. (Original) The method of claim 30, wherein the polyphenol is a catechin, tannin, proanthocyanidine, or resveratrol.

52. (Original) The method of claim 30, wherein the polyphenol comprises at least catechins or tannins.

53. (Original) The method of claim 30, wherein the polyphenol comprises epigallocatechingallate.

54. (Original) The method of claim 30, wherein the polyphenol has a hydroxy value of about 2 to about 100.

55. (Original) The method of claim 30, wherein the polyphenol comprises an extract selected from the group consisting of tea extract, seaweed extract, aloe extract, wine extract, cactus extract and fruit extract.

56. (Original) The method of claim 30, wherein the polyphenol comprises seaweed extract.

57. (Original) The method of claim 30, wherein the polyphenol comprises tea extract.

58. (Original) A method for preserving an organ, tissue or cell, comprising the step of:
1) retaining the organ, tissue or cell in a fluid comprising a polyphenol.

59. (Original) The method of claim 58, wherein the organ is the heart.

60. (Original) Use of polyphenol in manufacturing a medicament for protecting or preserving an organ, tissue or cell, wherein the medicament comprises the polyphenol.